

# RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical  
Information Center (STIC) no errors detected.

Application Serial Number: 10/590,551  
Source: IFWP  
Date Processed by STIC: 9/1/06

# ***ENTERED***



IFWP

## RAW SEQUENCE LISTING

DATE: 09/01/2006

PATENT APPLICATION: US/10/590,551

TIME: 12:09:28

Input Set : A:\Sequence listing.txt

Output Set: N:\CRF4\09012006\J590551.raw

```

3 <110> APPLICANT: Genomine, Inc.
4 POSTECH FOUNDATION
6 <120> TITLE OF INVENTION: Novel phytochrome-interacting protein and a use thereof
8 <130> FILE REFERENCE: OP05-1002
C--> 10 <140> CURRENT APPLICATION NUMBER: US/10/590,551
C--> 10 <141> CURRENT FILING DATE: 2006-08-24
10 <150> PRIOR APPLICATION NUMBER: KR 10-2004-0013663
11 <151> PRIOR FILING DATE: 2004-02-27
13 <160> NUMBER OF SEQ ID NOS: 15
15 <170> SOFTWARE: KopatentIn 1.71
17 <210> SEQ ID NO: 1
18 <211> LENGTH: 29
19 <212> TYPE: DNA
20 <213> ORGANISM: Artificial Sequence
22 <220> FEATURE:
23 <223> OTHER INFORMATION: PCR primer
26 <400> SEQUENCE: 1
27 ggatccaaat gtcaggctct aggccgact 29
30 <210> SEQ ID NO: 2
31 <211> LENGTH: 30
32 <212> TYPE: DNA
33 <213> ORGANISM: Artificial Sequence
35 <220> FEATURE:
36 <223> OTHER INFORMATION: PCR primer
39 <400> SEQUENCE: 2
40 ctcgagctac ttgtttgctg cagcgagttc 30
43 <210> SEQ ID NO: 3
44 <211> LENGTH: 1455
45 <212> TYPE: DNA
46 <213> ORGANISM: Arabidopsis thaliana
48 <400> SEQUENCE: 3
49 atggagacca agaatgagaa ttctgatggt tcacgggcag aggagttaa aagtcaggcc 60
51 aacgaagctt ttaaagggtca caaatactcc agtgctattg atctatatac aaaagctatt 120
53 gaactcaaca gcaacaacgc tgtgtattgg gcaaactcgt catttgctca cacaaaactg 180
55 gaggaatatg gcagtgcagt acaggatgca tcgaaggcca ttgaagttga ttcaagatac 240
57 tctaagggtc attacaggcg tgggtgctgc tatcttgcca tgggaaaatt taaggatgcc 300
59 ttgaaggact tccaacagggt aaaaaggctt tctcctaata accctgatgc cacaagaaag 360
61 ctaaagggaat gtgagaaagc agtgatgaaa ctcaaatttg aagaagcaat ctctgtgcca 420
63 gtatctgaaa ggcgttcagt agctgagtcc attgacttcc atacaataga ggttgagcca 480
65 caatattctg gtgctagaat tgaggggagag gaagttacct tagattttgt gaaaacgatg 540
67 atggaggatt ttaagaacca aaaaacattg cataaacggg atgcctatca aatcgtctta 600
69 cagactaggc aaatcttgct agcactgcct tctcttggtg atataagtgt tccacatggc 660
71 aaacatatca ctgtttgcgg tgacgttcat ggtcagttct acgatcttct caatatcttt 720

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73 gagcttaatg gcctcccttc ggaggagaac ccatacctat ttaatggcga ctttgtggac      780
75 agaggctcat tctccgttga gatcatcctc actttgtttg ctttcaagtg catgtgcccc      840
77 tcatccatat atctagccag aggaaacccat gaaagcaaga gcatgaacaa aatttatggt      900
79 tttgagggtg aggttcggtc caagttgagt gaaaaattcg tggatctctt tgctgaagtt      960
81 ttctgttacc tcccgttggc tcatgttata aatgggaagg tcttcgtggg acatggaggt     1020
83 cttttcagtg ttgacggcgt gaaactctca gacatcagag ccattgacag attctgtgag     1080
85 ccaccagagg aaggactaat gtgtgaacta ttgtggagtg atcctcaacc tctccctgga     1140
87 agaggcccaa gcaagcgagg agttgggtcta tcatttgggtg gagatgtgac aaagagggtt     1200
89 ttgcaagata acaatttaga tttgttggtc cggtcacatg aagtaaaaga tgaaggttat     1260
91 gaggttgaac atgacggtaa actcataact gtcttctctg cgccaaatta ctgtgatcag     1320
93 atgggtaata agggagcctt cattcgtttt gaagctcctg atatgaagcc aaacattggt     1380
95 acattctcag cagtgcctca tccggatgtg aagcctatgg catatgcaaa caactttctc     1440
97 aggatgttca actaa                                     1455
100 <210> SEQ ID NO: 4
101 <211> LENGTH: 484
102 <212> TYPE: PRT
103 <213> ORGANISM: Arabidopsis thaliana
105 <400> SEQUENCE: 4
106 Met Glu Thr Lys Asn Glu Asn Ser Asp Val Ser Arg Ala Glu Glu Phe
107   1           5           10           15
109 Lys Ser Gln Ala Asn Glu Ala Phe Lys Gly His Lys Tyr Ser Ser Ala
110           20           25           30
112 Ile Asp Leu Tyr Thr Lys Ala Ile Glu Leu Asn Ser Asn Asn Ala Val
113           35           40           45
115 Tyr Trp Ala Asn Arg Ala Phe Ala His Thr Lys Leu Glu Glu Tyr Gly
116           50           55           60
118 Ser Ala Ile Gln Asp Ala Ser Lys Ala Ile Glu Val Asp Ser Arg Tyr
119   65           70           75           80
121 Ser Lys Gly Tyr Tyr Arg Arg Gly Ala Ala Tyr Leu Ala Met Gly Lys
122           85           90           95
124 Phe Lys Asp Ala Leu Lys Asp Phe Gln Gln Val Lys Arg Leu Ser Pro
125           100          105          110
127 Asn Asp Pro Asp Ala Thr Arg Lys Leu Lys Glu Cys Glu Lys Ala Val
128           115          120          125
130 Met Lys Leu Lys Phe Glu Glu Ala Ile Ser Val Pro Val Ser Glu Arg
131           130          135          140
133 Arg Ser Val Ala Glu Ser Ile Asp Phe His Thr Ile Glu Val Glu Pro
134 145           150           155           160
136 Gln Tyr Ser Gly Ala Arg Ile Glu Gly Glu Glu Val Thr Leu Asp Phe
137           165          170          175
139 Val Lys Thr Met Met Glu Asp Phe Lys Asn Gln Lys Thr Leu His Lys
140           180          185          190
142 Arg Tyr Ala Tyr Gln Ile Val Leu Gln Thr Arg Gln Ile Leu Leu Ala
143           195          200          205
145 Leu Pro Ser Leu Val Asp Ile Ser Val Pro His Gly Lys His Ile Thr
146           210          215          220
148 Val Cys Gly Asp Val His Gly Gln Phe Tyr Asp Leu Leu Asn Ile Phe
149 225           230           235           240
151 Glu Leu Asn Gly Leu Pro Ser Glu Glu Asn Pro Tyr Leu Phe Asn Gly

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152          245          250          255
154 Asp Phe Val Asp Arg Gly Ser Phe Ser Val Glu Ile Ile Leu Thr Leu
155          260          265          270
157 Phe Ala Phe Lys Cys Met Cys Pro Ser Ser Ile Tyr Leu Ala Arg Gly
158          275          280          285
160 Asn His Glu Ser Lys Ser Met Asn Lys Ile Tyr Gly Phe Glu Gly Glu
161          290          295          300
163 Val Arg Ser Lys Leu Ser Glu Lys Phe Val Asp Leu Phe Ala Glu Val
164 305          310          315          320
166 Phe Cys Tyr Leu Pro Leu Ala His Val Ile Asn Gly Lys Val Phe Val
167          325          330          335
169 Val His Gly Gly Leu Phe Ser Val Asp Gly Val Lys Leu Ser Asp Ile
170          340          345          350
172 Arg Ala Ile Asp Arg Phe Cys Glu Pro Pro Glu Glu Gly Leu Met Cys
173          355          360          365
175 Glu Leu Leu Trp Ser Asp Pro Gln Pro Leu Pro Gly Arg Gly Pro Ser
176          370          375          380
178 Lys Arg Gly Val Gly Leu Ser Phe Gly Gly Asp Val Thr Lys Arg Phe
179 385          390          395          400
181 Leu Gln Asp Asn Asn Leu Asp Leu Leu Val Arg Ser His Glu Val Lys
182          405          410          415
184 Asp Glu Gly Tyr Glu Val Glu His Asp Gly Lys Leu Ile Thr Val Phe
185          420          425          430
187 Ser Ala Pro Asn Tyr Cys Asp Gln Met Gly Asn Lys Gly Ala Phe Ile
188          435          440          445
190 Arg Phe Glu Ala Pro Asp Met Lys Pro Asn Ile Val Thr Phe Ser Ala
191          450          455          460
193 Val Pro His Pro Asp Val Lys Pro Met Ala Tyr Ala Asn Asn Phe Leu
194 465          470          475          480
196 Arg Met Phe Asn
200 <210> SEQ ID NO: 5
201 <211> LENGTH: 24
202 <212> TYPE: DNA
203 <213> ORGANISM: Artificial Sequence
205 <220> FEATURE:
206 <223> OTHER INFORMATION: PCR primer
209 <400> SEQUENCE: 5
210 ggatccatgg agaccaagaa tgag
213 <210> SEQ ID NO: 6
214 <211> LENGTH: 24
215 <212> TYPE: DNA
216 <213> ORGANISM: Artificial Sequence
218 <220> FEATURE:
219 <223> OTHER INFORMATION: PCR primer
222 <400> SEQUENCE: 6
223 ctcgagttag ttgaacatcc tgag
226 <210> SEQ ID NO: 7
227 <211> LENGTH: 28
228 <212> TYPE: DNA

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229 <213> ORGANISM: Artificial Sequence
231 <220> FEATURE:
232 <223> OTHER INFORMATION: PCR primer
235 <400> SEQUENCE: 7
236 ggatccgatg tcaggctcta ggccgact 28
239 <210> SEQ ID NO: 8
240 <211> LENGTH: 34
241 <212> TYPE: DNA
242 <213> ORGANISM: Artificial Sequence
244 <220> FEATURE:
245 <223> OTHER INFORMATION: PCR primer
248 <400> SEQUENCE: 8
249 gctgatcagc atggtttccg gagtcggggg tagt 34
252 <210> SEQ ID NO: 9
253 <211> LENGTH: 34
254 <212> TYPE: DNA
255 <213> ORGANISM: Artificial Sequence
257 <220> FEATURE:
258 <223> OTHER INFORMATION: PCR primer
261 <400> SEQUENCE: 9
262 cccggccgga ctaatatggc atcatcagca tcat 34
265 <210> SEQ ID NO: 10
266 <211> LENGTH: 27
267 <212> TYPE: DNA
268 <213> ORGANISM: Artificial Sequence
270 <220> FEATURE:
271 <223> OTHER INFORMATION: PCR primer
274 <400> SEQUENCE: 10
275 ctcgagtcaa gagattgctt cttcaaa 27
278 <210> SEQ ID NO: 11
279 <211> LENGTH: 27
280 <212> TYPE: DNA
281 <213> ORGANISM: Artificial Sequence
283 <220> FEATURE:
284 <223> OTHER INFORMATION: PCR primer
287 <400> SEQUENCE: 11
288 ggatccatgc cagtatctga aaggcgt 27
291 <210> SEQ ID NO: 12
292 <211> LENGTH: 24
293 <212> TYPE: DNA
294 <213> ORGANISM: Artificial Sequence
296 <220> FEATURE:
297 <223> OTHER INFORMATION: PCR primer
300 <400> SEQUENCE: 12
301 atggagacca agaatgagaa ttct 24
304 <210> SEQ ID NO: 13
305 <211> LENGTH: 24
306 <212> TYPE: DNA
307 <213> ORGANISM: Artificial Sequence

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TIME: 12:09:28

Input Set : A:\Sequence listing.txt

Output Set: N:\CRF4\09012006\J590551.raw

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309 <220> FEATURE:
310 <223> OTHER INFORMATION: PCR primer
313 <400> SEQUENCE: 13
314 ttagttgaac atcctgagaa agtt
317 <210> SEQ ID NO: 14
318 <211> LENGTH: 347
319 <212> TYPE: PRT
320 <213> ORGANISM: Arabidopsis thaliana
322 <400> SEQUENCE: 14
323 Ser Val Pro Val Ser Glu Arg Arg Ser Val Ala Glu Ser Ile Asp Phe
324 1 5 10 15
326 His Thr Ile Glu Val Glu Pro Gln Tyr Ser Gly Ala Arg Ile Glu Gly
327 20 25 30
329 Glu Glu Val Thr Leu Asp Phe Val Lys Thr Met Met Glu Asp Phe Lys
330 35 40 45
332 Asn Gln Lys Thr Leu His Lys Arg Tyr Ala Tyr Gln Ile Val Leu Gln
333 50 55 60
335 Thr Arg Gln Ile Leu Leu Ala Leu Pro Ser Leu Val Asp Ile Ser Val
336 65 70 75 80
338 Pro His Gly Lys His Ile Thr Val Cys Gly Asp Val His Gly Gln Phe
339 85 90 95
341 Tyr Asp Leu Leu Asn Ile Phe Glu Leu Asn Gly Leu Pro Ser Glu Glu
342 100 105 110
344 Asn Pro Tyr Leu Phe Asn Gly Asp Phe Val Asp Arg Gly Ser Phe Ser
345 115 120 125
347 Val Glu Ile Ile Leu Thr Leu Phe Ala Phe Lys Cys Met Cys Pro Ser
348 130 135 140
350 Ser Ile Tyr Leu Ala Arg Gly Asn His Glu Ser Lys Ser Met Asn Lys
351 145 150 155 160
353 Ile Tyr Gly Phe Glu Gly Glu Val Arg Ser Lys Leu Ser Glu Lys Phe
354 165 170 175
356 Val Asp Leu Phe Ala Glu Val Phe Cys Tyr Leu Pro Leu Ala His Val
357 180 185 190
359 Ile Asn Gly Lys Val Phe Val Val His Gly Gly Leu Phe Ser Val Asp
360 195 200 205
362 Gly Val Lys Leu Ser Asp Ile Arg Ala Ile Asp Arg Phe Cys Glu Pro
363 210 215 220
365 Pro Glu Glu Gly Leu Met Cys Glu Leu Leu Trp Ser Asp Pro Gln Pro
366 225 230 235 240
368 Leu Pro Gly Arg Gly Pro Ser Lys Arg Gly Val Gly Leu Ser Phe Gly
369 245 250 255
371 Gly Asp Val Thr Lys Arg Phe Leu Gln Asp Asn Asn Leu Asp Leu Leu
372 260 265 270
374 Val Arg Ser His Glu Val Lys Asp Glu Gly Tyr Glu Val Glu His Asp
375 275 280 285
377 Gly Lys Leu Ile Thr Val Phe Ser Ala Pro Asn Tyr Cys Asp Gln Met
378 290 295 300
380 Gly Asn Lys Gly Ala Phe Ile Arg Phe Glu Ala Pro Asp Met Lys Pro
381 305 310 315 320

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**VERIFICATION SUMMARY**

PATENT APPLICATION: US/10/590,551

DATE: 09/01/2006

TIME: 12:09:29

Input Set : A:\Sequence listing.txt

Output Set: N:\CRF4\09012006\J590551.raw

L:10 M:270 C: Current Application Number differs, Replaced Current Application No

L:10 M:271 C: Current Filing Date differs, Replaced Current Filing Date